REMARKS/ARGUMENTS:

Claim 9 is canceled without prejudice. Claim 7 is amended. Support for the amendment to claim 7 can be found in original claim 9 and at page 23, lines 14-18 of the Applicant's specification. Claims 7, 8, and 10-14 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103:

Claims 7-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Layne et al. (U.S. Patent No. 5,968,731 A) in view of Ozawa et al. (U.S. Patent No. 5,988,857 A). This rejection is moot with respect to claim 9 due to the cancellation of this claim. The Applicant respectfully traverses this rejection as to claims 7, 8, and 10-14.

Claim 7, as amended, is as follows:

> An apparatus for mechanical control of an automated immunochemistry or chemistry instrument which has a multiplicity of subsystems for performing immunochemistry or chemistry assays, the apparatus for mechanical control comprising:
>
> a mechanical control system having both object-orient features and real-time features for control of the operations of the multiplicity of subsystems; wherein the subsystems operate on, transform, or transfer passengers; wherein said mechanical control system comprises a scheduler configured for determining the times when one or more sets of operations of said multiplicity of subsystems must be executed; wherein said scheduler is configured for determining

whether said multiplicity of subsystems is available for performing said immunochemistry or chemistry assays; and

a passenger template base class comprising facilities configured for passenger creation, destruction, enumeration and state recovery.

The Applicant respectfully submits that Layne and Ozawa cannot render claim 7 obvious because the cited references fail to teach or suggest a scheduler configured for determining the times when one or more sets of operations of the multiplicity of subsystems must be executed; and for determining whether said multiplicity of subsystems is available for performing the immunochemistry or chemistry assays.

The Examiner states that Layne "teaches that the computer control apparatus (e.g., 128 & 136) incorporates the use of a sequencing, scheduling or timing function (see col. 8, lines 44-64; col. 9, lines 40-67)."

With respect to task sequence controllers, Layne states,

"Task sequence controllers (TSCS) 136 are intermediate level devices which use tools from operations research to govern intricate flows of supplies and samples through automated instruments. Before performing actual tests, computer simulations mimic SLM 134 controllers and adhere to critical timing events of the candidate tests procedures. This virtual instrument then generates start-up times and optimizes the sequence by which all tasks take place. TSCs users include laboratory technicians who load materials into automated instruments and supervise their performance on a daily basis (complete runs can amount to approximately 10,000 tasks, for example, which far surpass the manual scheduling capabilities of humans) and engineers who develop and debug new instruments or look for ways to improve on existing ones. TSCs 136 are capable of

dynamic retasking, which, for example allows adding and subtracting assays while automated instruments are up and running--a particularly useful feature for clinical work." (Layne, column 9, lines 41-49).

The Applicant respectfully submits that the aforementioned scheduler taught by Layne fails to teach or suggest the planning and availability capabilities of the present invention. Ozawa cannot remedy the defect of Layne and is not relied upon by the Examiner for such. Instead, the Examiner cites Ozawa for teaching an automatic processing system, which utilizes object-oriented and real-time features, for the control of the operations of a multiplicity of subsystems (i.e., processing systems).

It is an aspect of the present invention that the scheduler determines that all the resources that a test needs are free when the test needs them. A test can be run if and only if all resources needed by the test may be reserved at the times that the test requires them. With the exception of supply resources, it is always possible to schedule a test if we look far enough into the future. (Applicant's specification, at page 23, lines 11-13). Once the scheduler determines that all the resources that a test needs are free when the test needs them, the Route object is constructed based on the resources that are reserved. If all the resources are not available when they are needed, the scheduler tries again, looking farther into the future. After the route is constructed, the actions are sent to the sequencer. (Applicant's specification, at page 23, lines 14-18).

In contrast, Layne and Ozawa do not offer the planning capabilities of the present invention because Layne and Ozawa fail to teach or suggest a scheduler that can track resources and schedule tests based on the availability of those resources.

In light of the foregoing, Applicant respectfully submits that the cited references could not have rendered obvious claim 7, because the cited references fail to teach or suggest each and every claim limitation. Claims 8 and 10-14 depend from claim 7 and cannot be rendered obvious for at least the same reasons as claim 7. Withdrawal of these rejections is thus respectfully requested.

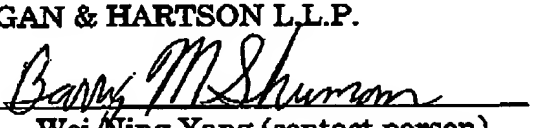
In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6851 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

Date: September 2, 2005

By: 
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